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ABSTRACT

Significant progress has been made to enhance the oral English proficiency of International Teaching Assistants (ITAs), with the greatest strides being made in the linguistic aspects but little attention being paid to cultural communication and pedagogical dimensions. A survey of ITAs in the chemistry, mathematics, and physics departments at Indiana University Bloomington, Indiana University Purdue University Indianapolis, and Purdue University at West Lafayette indicated that 41% of the teaching assistants were ITAs, corresponding to national figures. By 1991, 17 states required institutions of higher education to certify the English language competency of their faculty before they enter the classroom. Two-thirds of those programs responsible for English proficiency of ITAs use structured or standardized tests to test for language competence. However, classroom communication goes considerably beyond the language competence of the instructor. Policymakers should not assume that English language proficiency is synonymous with the ITA's qualifications to communicate with a class. Even though ways have been developed and implemented to give some measurement of the prospective ITS's classroom abilities, those responsible for university-wide ITA screening should continue to refine their programs and interact more with faculty who have involvement in pedagogical and intercultural training. (One table of data and one table listing pedagogical training for teaching assistants in the three Indiana universities are included; 19 references are attached.) (RS)

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Oral English proficiency requirements for ITAs in U.S. colleges and universities: An issue in speech communication

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INTRODUCTION

Last year the number of foreign graduate students in the U.S. reached a new high of 182,130 (Zikopolous, 1991) and is continuing its rise from the early 1970s. A large portion of those students will remain in this country. Their contributions in the sciences, particularly in light of the levelling off of U.S. student enrollment in those areas, prompted one expert to note that "America's key technological trump card is its intrinsic appeal to the world's best scientific and technical minds. By luring such talent to our shores, America's universities are simply helping the nation play its strongest hand in the global economy" (Kotkin, 1993, p. B2). Over 57% of foreign graduate students are in Math and Computer Science, Physics and Life Sciences, Business, and Engineering (Zikopolous, 1991).

Many of those persons, speaking English as a second language, are teaching assistants in U.S. undergraduate classrooms. We know that 36.6% of the foreign graduate students last year received the "major portion of their funding from U.S. colleges and universities" (Zikopolous, 1991, p. 74). Some are on fellowships and grants, conducting full-time research, whereas many others are teaching. Indeed, some "62,148 foreign scholars were teaching and doing research in U.S. universities during the

1991-92 academic year" (Watkins, 1992, p. A33), nearly 47% of whom, incidentally, were Asiatic compared to 30% two decades earlier.

To gain a localized perspective on the number of international teaching assistants in undergraduate classrooms, the authors conducted a survey of ITAs in selected science departments (Chemistry, Math, and Physics) at our three largest state supported research institutions in Indiana: IU Bloomington; IU Indianapolis (IUPUI); and Purdue at West Lafayette. There was a total of 41% ITAs, which corresponded with aforementioned national figures.

TABLE 1

TAs at Indiana Research Universities in 1992-93						
Institution	Chemistry		Mathematics		Physics	
	ITAs	USTAs	ITAs	USTAs	ITAs	USTAs
IU Bloomington	6	94	40	50	19	8
IU Indpls (IUPUI)	8	19	11	1	12	2
Purdue	60	112	66	56	43	41
Totals	74	225	117	107	74	51

Under these circumstances, the odds increasingly are great that many if not most undergraduate sections in science at most institutions will be taught by ITAs. For instance, at IU Indianapolis, 92% of the TAs in Mathematics are international and 88% of those in Physics are. Of course, not all ITAs are assigned to classroom teaching.

Some teach or supervise labs, others are in co-teaching capacities with native speakers of English, and some are graders.

Much of the quality of U.S. higher education is linked inextricably with the effectiveness of communication between ITAs and their undergraduate students.

This paper explores the nature and extent of communication training that ITAs receive as well as what they should receive for their faculty and staff roles in U.S. colleges and universities. While giving an overview, it puts a focus on Indiana state supported research institutions vis-a-vis national standards and policies.

OVERVIEW OF CURRENT PROGRAMS

An extensive number of programs and policies have been established to certify or at least enhance minimum requirements for the "oral English proficiency" of ITAs in American higher education. Many of these emerged because of student and parental concern about difficulty in understanding the spoken English of ITAs. When students are unable to understand an instructor, they may presume it is because of the linguistic or mechanical failure of the speaker, a lack of mastery over vocabulary, grammar, syntax, pronunciation and the like. And indeed this can be a problem.

In surveys of campuses in the Illinois system, the most frequent single complaint among undergraduates was that the ITAs had "language problems which interfered with the

students' comprehension of classroom material. It was just such a complaint that precipitated legislation in Illinois in 1986" (Thomas & Monoson, 1991, p. 383). Similarly, in 1979 the Faculty Council at IU Bloomington mandated the Linguistics faculty to develop and require an "English Proficiency Examination" for ESL teaching assistants. IUB was prompted by a student's pending law suit. The student attributed failure in a science course to the instructor's "ineptness with oral English" (Greer, 1993).

The reason for the general move to establish tests to meet the more linguistic, mechanical aspects involved, was emphasized by Sequeira and Costantino (1989):

> Because legislators, parents, and undergraduates who are concerned about ITAs as instructors have tended to focus on ITAs' oral English skills, there has been a trend toward legislation and development of policies for screening oral proficiency in English.
>
> Today most universities continue to admit and place international graduate students in programs on the basis of standardized screening tests . . . . The advantage of standardized tests is that they provide comparative data for use in making decisions about placement of ITAs. (p. 80)

Generally two sources have responded most to the student complaints and have established training programs and certification criteria: "State legislatures and central administrative officers at institutions across the United

States have largely been responsible for ITA training program requirements . . . . Historically, much training has been housed in ESL programs" (Sequeira & Constantino, 1989, p. 83).

By the year 1991, seventeen states had "required institutions of higher education to certify the English language competency of their faculty before they enter the classroom" (Monoson & Thomas, 1993, p. 127).

The states with mandates include Arizona, California, Florida, Georgia, Illinois, Iowa, Kansas, Louisiana, Minnesota, Missouri, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, and Texas. State mandates vary in several ways. Many are in the form of legislative statutes; others are directed by state governing boards, Governors, and the like (Monoson & Thomas, 1993).

The survey by Monoson and Thomas concluded that institutions in states without some kind of legislative policy or other form of governmental directive were less likely to develop proficiency policies. Incidentally, all of the public research institutions in the nonmandated State of Indiana have voluntarily established oral English proficiency requirements which are all directed to ITAs to the exclusion of full time faculty. By geographically focussing on international students, there can be oversights of some language needs. For instance, the Mathematics Chair

at Purdue reminded us that he "cannot send a non-native English speaking permanent resident to DEPP" (Lipshitz, 1993).

Legislatures and university administrations have emphasized language skill in the current programs: "In both mandated and nonmandated states, institutional policies typically focused on international teaching assistants, used structured tests, and assessed only language competence rather than cultural or pedagogical skills" (Monoson & Thomas, 1993, p. 136).

KINDS OF TESTING AND TRAINING PROCEDURES

Some two-thirds of those programs responsible for English proficiency of ITAs use structured or standardized tests, addressing those linguistic elements which are highly evident in undergraduate education.

The Test of English as a Foreign Language (TOEFL) has been in existence since 1964, assessing the English usage of ESL students applying for admission to U.S. colleges and universities. By the late seventies the Test of Spoken English (TSE) had evolved. The TSE, designed by the Educational Testing Service, can be administered within a half hour at TOEFL Test Centers. The instrument tests the linguistic mastery of the examinee, with scoring on comprehensibility, pronunciation, grammar, and fluency. More specifically for testing ITAs is the Speaking Proficiency English Assessment Kit (SPEAK). With SPEAK,

using a retired test from TSE, an institution can assess on a more quantitative basis the linguistic proficiency of ITAs. The Kit is complete with manuals, scoring instructions, rater training tapes, test tapes, examination booklets, and rating forms. Institutions normally set an acceptable score for ITAs of between 200 and 250. [1]

So, standardized linguistic tests for ITAs prevail throughout the United States addresing general linguistic concerns from pronunciation to comprehensibility. Often there are stringent requirements for knowledge of the language; for instance, IU Bloomington's test, designed by a Linguistics professor, has been administered 1,631 times to 411 different examinees since Fall, 1988--only 94 passed the first time they took it; 30 gave up after that first time; 297 took it more than once, and of those 297, only 140 ultimately passed. So, a total of only 234 (56%) examinees were finally successful (Greer, 1993).

If ITA examinees pass the test, they ordinarily are not required to take courses that might or might not have units on communication, culture, or pedagogical methods. [2] Any further training or placement then becomes the prerogative of the employing department.

The widespread implementation of programs during recent years has suggested the conscientiousness of American institutions, mandated and otherwise, in addressing the issue of Oral English proficiency for ITAs.

Focus on linguistic competence also is understandable because linguistics departments and ESL programs, which regularly are a part of English departments, invariably are given the legislative and/or university administration's directive to establish testing procedures and training programs for ITAs. While they have made significant strides in meeting the ever-increasing demand in that particular area, there are other aspects relating to ITA classroom performance that are not featured in many programs. Classroom communication goes considerably beyond the language competence of the instructor.

Communication behaviors and characteristics, as well as pedagogical methods and practices, are unique to each culture, and ITAs must adapt to those of this culture. Numerous resources exist on U.S. campuses that might well contribute to that adaptation by and effective preparation of ITAs. For instance, the communication discipline is developing curricular emphasis on intercultural communication. It was on this subject that Gary Althen (1991) expressed concern with the status quo, commenting:

> People who teach in ITA training programs are not necessarily prepared to teach about culture. Most are probably hired because they were versed in linguistics, pedagogy, or a particular discipline, and not because of their formal preparation for teaching about culture (p. 353).

The remainder of this study examines non-linguistic dimensions, including intercultural communication.

GENERAL COMMUNICATION

As some existing programs have recognized, effective communication by definition is not a linear, monologic process, the onus for which is entirely on the speaker independently from the classroom audience. A simulated test is necessarily detached from the communicative context in which numerous forms and types, i.e. functions, of communication dynamically can evolve between instructor and class. Nearly a decade ago, Kathleen Bailey (1984) after analyzing the issue told us that "proposed solutions to the foreign TA problem must go beyond accent improvement and English language training. Consequently, a number of ESL-based programs developed for foreign TAs have also offered instruction in communication strategies, public speaking, and nonverbal communication" (p. 15). Our field has focussed much attention, with units and entire courses, on the aforementioned oral communication elements, along with others such as small group, business and professional communication, and technical communication for science and engineering. Additional current substantive, curricular areas of speech communication, that ESL experts say are needed in ITA programming, are "persuasion, argument, rational inquiry . . . and emotional relations, [an area inherent to interpersonal communication]" (Shaw & Garate, 1984, p. 25.).

This discussion of general communication does not necessarily mean more study has to be required for foreign teaching assistants--perhaps just some adjustment of existing formats and units. In fact, the mastery of some communicative strategies might serve to more than compensate for some language deficiencies. If students cannot understand certain words, there might be ways a speaker can clarify or amplify meaning and understanding through nonverbal behaviors, question-asking, use of the board and other visual or audio means, and the list goes on. Through the establishment of an effective communication climate in a class, the linguistic hurdle might be cleared. Bart Ng, the Mathematics Chair at IU Indianapolis, referred to an ESL speaking faculty member in his Department who has considerable difficulty linguistically, but is highly enjoyable and self-effacing about his shortcomings with oral English. He seeks understanding when he senses confusion in audience feedback, and jokes while rectifying the situation. That faculty member consistently receives high student evaluations and his students score well on standardized examinations. In short, he communicates effectively with his students (Ng, 1993). The Chemistry Department at IU Indianapolis reported that even after the ESL courses, they received comments on evaluations that some ITAs "are not verbally understood, but because they make good use of boards, they get the point across" (Krupa, 1993). Such

completeness in communication is vital to the classroom learning process, for regular foreign faculty and ITAs alike.

The situation was further explained by Thomas and Monoson (1991):

> The lack of attention given to the overall communication and teaching ability of TAs is troublesome. Some international students may have inadequate oral English language proficiency but, combined with effective communication skills, are adequate in a particular classroom. The opposite situation can occur where an instructor may have adequate language structure and pronunciation but inadequate communication skills in order to be an effective teacher (1991, p. 390).

Policymakers should not presume, then, that English language proficiency is synonymous with the ITA's qualifications to communicate with a class. The interactive nature of student-instructor relations must be considered fully. In conducting a study on ITA concerns at Penn State, Gabriele Bauer (1991) employed the communication model that should underlie policymaking. Bauer's study was

> "rooted in the symbolic interactionist perspective of communication that configures the communication process as a mutual and ongoing exchange of verbally and nonverbally coded ideas and feelings. In other

words, teacher communication is regarded as a two-directional process in which meaning is exchanged rather than messages sent" (p. 421).

INTERCULTURAL COMMUNICATION

Even more closely related to ITAs is intercultural communication. Not only do speech communication curricula feature entire courses on intercultural communication, but many aforementioned courses necessarily devote units to the intercultural variables affecting communicative interaction. Several developers of training and certification programs have perceived and responded to this issue over the years despite the myopic views of many undergraduates and legislators. Sequeira and Costantino (1989) summarized ITA needs:

> Although the issue for most undergraduates tends to be ITAs' "poor English," research suggests that ITAs also require extensive training in instruction and the kinds of cross-cultural communication appropriate for U.S. students . . . . Training programs that equally emphasize three skills areas--language, pedagogy, and cross-cultural communication--maintain the perspective that "communicative competence" is the ultimate goal, because ITAs need to learn not only appropriate language but also appropriate behavior for specific contexts (pp. 83-84).

Yet, even when units on intercultural communication are included in ESL courses, ITAs are often exempted from taking

such courses once they have passed the screening tests, most of which focus primarily on language efficiency. It is possible that an ITA fluent in English but from an entirely different culture, say from English speaking schools in India, would pass the language test but be deficient in intercultural communication.

Intercultural communication effectiveness or failure results less from the language than from the use of language in classroom interactions. On the content level, there are contrasting approaches to reasoning; for instance, U.S. scholars emphasize more deduction than induction. Concerning those logical rhetorical processes, Shigehiko Toyama (in Ishii, 1985) concluded that a "bridge" reflected the American pattern whereas the "stepping stone" was the Japanese culture's way. The "bridge" involved sending an idea explicitly and directly, as if building a bridge from point one to point two; in contrast, the Japanese "stepping stone" approach sends ideas implicitly and indirectly, as if arranging stepping stones from point one to point two. This was part of an explanation of the difference in thought patterns as well as "the values that function underneath them" (Ishii, 1985, p. 99).

In the U.S. there also is strong dependence on argumentation and debate in dissecting issues, whereas some cultures wish to avoid mutual confrontation and promote interpersonal harmony. Competitiveness and individualism

are reflected in American behaviors, and this can create misunderstandings with instructors from other cultures in the U. S. classroom.

And, of course, the various nonverbal behaviors have communicative meanings when ITAs interact with students. Eye contact patterns, vocalics, gestures and other aspects of body language, proxemics, and all the other nonverbal subtleties of communication are vulnerable to misinterpretation, just as well as the verbal ones are.

It appears that on some campuses there can be a greater consultation and interdisciplinary cooperation between the ITA programs and those offering speech courses, particularly intercultural communication and/or oral communication courses for international students. Althen (1991) has suggested that

> ITA trainers may also want to collaborate with cross-cultural training specialists in order to enlarge the repertoires of teaching and training tactics. This is not to suggest that cross cultural training specialists have all the answers. They do not . . . . But they are likely to be aware of literature and training techniques and materials that ITA trainees will find helpful (pp. 353-354).

PEDAGOGY

Pedagogy is enhanced by employing in the classroom the various intercultural communication tactics alluded to above. Yet, there are some more specific issues to be addressed here. Operators of ITA training programs cannot be expected to know the substance of various academic disciplines. Yet, ways have been developed to give some measurement of the prospective ITA's classroom abilities, and they have been incorporated into some of the testing programs.

At IU Indianapolis, part of the OEP Examination is a "Presentation of a lesson based on student's discipline--10-15 minutes" (Boyd, 1993). In the lecture portion of the test, two ESL representatives and two representatives from the department listen, but only the department representatives evaluate that area (Boyd, 1993). At Purdue, during the screening process, the candidates present a lecture on their departmental subject matter, but OEPP instructors "do not evaluate this content" (Berns, 1993). Also, at Purdue and Ball State University (Nu, 1993), mini-teaching units, some which are videotaped, are incorporated in the courses made available to ITAs, but, again, those who pass the screening test take the course only on a voluntary basis.

Other Indiana institutions have no teaching, per se, incorporated in their tests at the university level. Bloomington stresses that "substance is not touched. Who

can say what is 'mathematical English,' or 'chemistry English,' etcetera" (Greer, 1993). And there is no testing involving pedagogy at Indiana State University (Barratt, 1993).

While all TAs should be given special direction and supervision in course preparation and teaching by persons in their own department, and greater overall attention is being given to this, ITAs need some attention that faculty at that level might be less capable of providing. This is particularly true of intercultural communication. His observations might seem somewhat harsh but, for many of our colleagues, Althen (1991) probably was correct when he said:

> U.S. faculty cannot always be expected to support an ITA trainer's efforts in the area of intercultural communication, convinced as they often are, that all that really matters in teaching is knowledge of their discipline and skill and pronouncing English (p. 353).

So, a probability remains that pedogogical training at the department level will not encompass a great deal of intercultural communication. In fact, most of the departmental training is directed to all TAs rather than to the more peculiar needs of ITAs. As more ITAs join university departments, the need will continue to grow for preparatory courses in which the instructor must express meanings, using the target language, in the content area being taught. At this point, the need appears to exist for

more "substantive research. We still lack information on effective discipline-specific instruction" (Sequeira & Costantino, 1989, p. 85).

Table 2 indicates the variety of offerings for TAs in some of Indiana's science departments, along with those directed specifically at ITAs on that level.

TABLE 2

Pedagogical Training for TAs in Selected Science Departments at Indiana State-Supported Research Universities*

	CHEMISTRY	MATHEMATICS	PHYSICS
IU Bloomington**	--	1 Sem. Hr. Workshop for all TAs (Fall)	1 Sem Hr Methods Course for all lab instructors (Fall)
IU Indpls (IUPUI)	Instructional Workshop for all TAs (Fall)	Non-credit Course for ITAs selected by Dept. (Summer)	--
Purdue	--	(a) 12-Hr. Instructional Workshop for all TAs (b) Workshop for ITAs	Instructional Workshop for all TAs (Summer and Fall)

*Pedagogical components exist in the ESL courses at each institution for those ITAs who fail the language proficiency screening test or are otherwise encouraged to take them.

**ITAs in all IU Bloomington departments participate each fall in a four-hour "diversity workshop" involving general cultural and subcultural issues vis-a-vis classroom teaching.

NOTE: Many departments have ongoing mentoring and supervision of teaching.

CONCLUSION

Significant progress has been made to enhance the oral English proficiency of ITAs. The greatest strides have been made on the linguistic aspects, a concentration given by legislative mandates and institutional administrators because of its greater obviousness. The cultural communication and pedagogical dimensions of the subject have received less systematic attention. As those responsible for university-wide ITA screening and training continue to refine their programs, it would appear advantageous for them to interact and consult more with faculty on their respective campuses who have involvement in pedagogical and intercultural communication training. The direction in which the programs must go was articulated by Sequeiro and Costantino (1989):

> Obviously, ITAs must have the language skills to master the instructional strategies most appropriate for teaching their content areas. They also need instructional practice that will allow them to function cross-culturally in their universities. Institutions face the challenge of using experts in language, pedagogy, and cross-cultural communication (<u>usually already present on most campuses</u>) [italics mine] to address the complex needs of ITAs (p. 84).

NOTES

1. In Indiana, Purdue University (Berns, 1993) and Ball State (Nu, 1993) use the SPEAK test as a part of their program; IU Indianapolis (Boyd, 1993) has an instrument similar to the one designed by the University of Michigan; IU Bloomington (Greer, 1993), has its own instrument; and Indiana State University, Terre Haute (Barratt, 1993) requires higher TOEFL scores for ITAs (550) than that for non-assistant foreign graduate students.
2. Such exemption is generally the case with state supported universities in Indiana:
   a. At Purdue (Berns, 1993), the examinee must meet a minimum level on the SPEAK Test. Otherwise he/she must satisfactorily complete the communication course in the Oral English Proficiency Program, located in the Department of English. The only other way a student might be exempted from taking any OEPP course would be by passing departmental screening. Departmental screening also must be approved by the English Department.
   b. At IU Bloomington (Greer, 1993), the examinee must pass the test, and courses are made available for those who do not.
   c. At IU Indianapolis (IUPUI) (Boyd, 1993), "if the test [result] indicates a need for ESL courses, the courses must be completed.

d. At Ball State University (Nu, 1993), every ITA must take the SPEAK Test, and "problematic" ones are recommended by their chairs to take the ESL course. The course is voluntary and does not feature a unit on cultural orientation.

e. At Indiana State University (Barratt, 1993), there is no comprehensive policy concerning ITAs; they must achieve a certain level on TOEFL.

REFERENCES

Althen, G. (1991). Teaching "culture" to international teaching assistants. In J.D. Nyquist, R. D. Abbott, D. H. Wulff, & J. Sprague (Eds.), Preparing the professoriate of tomorrow to teach (pp. 350-355). Dubuque: Kendall/Hunt.

Bailey, K. M. (1984). The "foreign TA problem." In K. M. Bailey, F. Pialorsi, & J. Zukowski/Faust (Eds.), Foreign teaching assistants in U.S. universities (pp. 3-15). Washington, D. C.: National Association for Foreign Student Affairs.

Barratt, L. (1993, April 22) (Associate Professor LInguistics, Indiana State University, Terre Haute) Interview by Authors.

Bauer, G. (1991). Instructional Communication concerns of international (non-native English-speaking) teaching assistants--a qualitative analysis. In J. D. Nyquist, R. D. Abbott, D. H. Wulff, & J. Sprague (Eds), Preparing the professoriate to teach (pp. 420-426). Dubuque: Kendall/Hunt.

Berns, M. (1993, April 21.) (Director of Oral English Proficiency Program, Purdue University) Interview by Authors.

Boyd, M. (1993, March 31.) (ESL Lecturer/Coordinator of ITA Testing and Graduate ESL Courses, Indiana University, Indianapolis--IUPUI) Interview by Authors.

Greer, S. (1993, March 25). (Associate Coordinator of Center for English Language Training, Indiana University, Bloomington) Interview by Authors.

Ishii, S. (1985). Thought patterns as modes of rhetoric: The United States and Japan. In L. D. Samovar & R. E. Porter (Eds.), Intercultural communication: A reader (4th ed.) (pp. 97-102). Belmont, CA: Wadsworth.

Kotkin, J. (1993, February 24). Enrolling foreign students will strengthen America's place in the global economy. Chronicle of Higher Education. pp. B1, B2.

Krupa, K. (1993, March 26.) (Assistant to Chair of Chemistry, Indiana University, Indianapolis --IUPUI) Interview by Authors.

Lipshitz, L. (1993, April 16.) (Chair of Mathematics, Purdue University) Interview by Authors.

Monoson, P.K. & Thomas, C. F. (1993). Oral English proficiency policies for faculty in U. S. higher education. Review of Higher Education, 16, 127-140.

Ng, B. (1993, March 29). (Chair of Mathematics, Indiana University, Indianapolis) Interview by Authors.

Nu, A. (1993, March 28) (Assistant in International Graduate Assistant Development Program, Ball State Unviersity) Interview by Authors.

Sequeira, D.L. & Costantino, M. (1989). Issues in ITA training programs. In J. D. Nyquist, R. D. Abbott, & D. H. Wulff (Eds.), Teaching assistant training in the 1990s (pp. 79-86). San Francisco: Jossey-Bass.

Shaw, P. A. & Garate, E. M. (1984). Linguistic competence, communicative needs, and university pedagogy: Toward a framework for TA training. In K. M. Bailey, F. Pialorsi, & J. Zukowski/Faust (Eds.), Foreign teaching assistants in U. S. universities (pp. 22-40). Washington, D. C.: National Association for Foreign Student Affairs.

Thomas, C. F. & Monoson, P.K. (1991). Issues related to the state-mandated English language proficiency requirements. IN J. D. Nyquist, R. D. Abbott, D. H. Wulff, & J. Sprague (Eds.), Preparing the professoriate of tomorrow to teach (pp. 382-392). Dubuque: Kendall/Hunt.

Watkins, B. T. (1992, December 9). Asians make up 47% of foreign scholars on U. S. campuses. Chronicle of Higher Education. pp. A35, A36.

Zikopoulos, M. (Ed.). Open doors 1990/91: Report on international educational exchange. New York: Institute of International Education.